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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/503,140	02/11/2000	Tsuneo Hayashi	SONY-T0130	6142

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EXAMINER

TORRES, JOSEPH D

ART UNIT PAPER NUMBER

2133

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/503,140

Applicant(s)

HAYASHI ET AL.

Examiner

Joseph D. Torres

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7,19,20 and 28-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7,19,20 and 28-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-3, 5-7, 19, 20 and 28-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1, 19, 20 and 34 recite, "the control operation including modulation of the parameter at a predetermined frequency" [Emphasis Added]. Nowhere does the Applicant's specification teach that the control operation includes a means for "modulation of the parameter at a predetermined frequency" [Emphasis Added]. Figure 2 of the Applicant's disclosure instead teaches that Microcomputer controller 19 produces the parameter S19a after 8-16 Demodulation 16 and nowhere does the Applicant's specification teach the write portion of circuitry required for modulating data onto an optical disk. Figure 2 of the Applicant's disclosure instead teaches that that Microcomputer controller 19 sends the parameter S19a to Read System 3 of Figure 2 in the Applicant's disclosure. The Examiner assumes the following was intended: --the control operation producing a parameter signal--.

Claims 1, 19, 20 and 34 recite, "calculation of an amount of error rate variation **synchronized with the modulation**" [Emphasis Added].

The Examiner assumes the following was intended: --calculation of an amount of error rate variation **in response to the parameter signal**--.

Specification

2. The disclosure is objected to because of the following informalities: Nowhere does the Applicant's specification teach that the control operation includes a means for "**modulation** of the parameter at a predetermined frequency" [Emphasis Added] as recited in newly amended claims. Figure 2 of the Applicant's disclosure instead teaches that Microcomputer controller 19 produces the parameter S19a after 8-16 Demodulation 16 and nowhere does the Applicant's specification teach the write portion of circuitry required for modulating data onto an optical disk. Figure 2 of the Applicant's disclosure instead teaches that that Microcomputer controller 19 sends the parameter S19a to Read System 3 of Figure 2 in the Applicant's disclosure. Appropriate correction is required.

Response to Arguments

3. The Examiner rewrites the previous prior art rejection incorporating the newly amended claim language of claims 1, 19, 20 and 34, below for the applicant's convenience.

Hayashi teaches an error correcting means for correcting errors in said read data (Correction Circuit 16 in Figure 7 of Hayashi is an error correcting means for correcting errors in said read data); an error rate calculating means for calculating an error rate of said errors in said read data (Error Rate Counter 31 is an error rate calculating means for calculating an error rate of said errors in said read data); and a control means for dynamically controlling and adjusting reading conditions (Figure 7 and col. 4, lines 61-67 in Hayashi teach the system controller 29 performs control to increase the gain of the variable gain amplifier 30 through the I/F circuit 26, thus increasing the amplitude of the RF signal; Note: col. 2, lines 44-35 of Hayashi teaches that gain control is incorporated into Prior servo control for controlling reproduction speed, that is, Hayashi explicitly teaches dynamically controlling and adjusting reading conditions by adjusting the read gain and read speed); wherein the control means performs a control operation so as to determine a parameter that makes an error rate smaller before or during playback of the recording medium (The Abstract in Hayashi explicitly teaches that control operations are performed moment-to-moment in response to parameter signal from I/F circuit 26 in Figure 7 when the error rate exceeds a certain level in order to lower the error rate) or if a condition of playback deteriorates the control operation including modulation of the parameter at predetermined frequency, calculation of an amount of error rate variation synchronized with the modulation, and variation of the parameter in proportion to the calculated amount (The Abstract in Hayashi explicitly teaches that control operations are performed moment-to-moment in response to parameter signal from I/F circuit 26 in Figure 7 when the error rate varies from a certain acceptable error level; the parameter

signal from I/F circuit 26 is produced from calculations arising from the variation of the error rate from a certain acceptable error level).

Applicant's arguments filed 09/26/2005 have been fully considered but they are not persuasive.

The Applicant contends, "At no point does Hayashi teach or suggest the use of a control means for controlling reading conditions by determining a parameter that makes an error rate smaller before or during playback by modulating a parameter at a predetermined frequency, calculating an amount of error rate variation synchronized with the modulation, and varying the parameter in proportion to the calculated amount". The Examiner would like to point out that Figure 2 of the Applicant's disclosure instead teaches that Microcomputer controller 19 produces the parameter S19a after 8-16 Demodulation 16 and nowhere does the Applicant's specification teach the write portion of circuitry required for modulating data onto an optical disk. Figure 2 of the Applicant's disclosure instead teaches that that Microcomputer controller 19 sends the parameter S19a to Read System 3 of Figure 2 in the Applicant's disclosure. Claims 1, 19, 20 and 34 recite, "the control operation including modulation of the parameter at a predetermined frequency" [Emphasis Added]. The Examiner assumes the following was intended: --the control operation producing a parameter signal--. Claims 1, 19, 20 and 34 recite, "calculation of an amount of error rate variation synchronized with the

modulation" [Emphasis Added]. The Examiner assumes the following was intended: -- calculation of an amount of error rate variation **in response to the parameter signal**--. Hayashi teaches the control means performs a control operation so as to determine a parameter that makes an error rate smaller before or during playback of the recording medium (The Abstract in Hayashi explicitly teaches that control operations are performed moment-to-moment in response to parameter signal from I/F circuit 26 in Figure 7 when the error rate exceeds a certain level in order to lower the error rate) or if a condition of playback deteriorates the control operation including modulation of the parameter at predetermined frequency, calculation of an amount of error rate variation synchronized with the modulation, and variation of the parameter in proportion to the calculated amount (The Abstract in Hayashi explicitly teaches that control operations are performed moment-to-moment in response to parameter signal from I/F circuit 26 in Figure 7 when the error rate varies from a certain acceptable error level; the parameter signal from I/F circuit 26 is produced from calculations arising from the variation of the error rate from a certain acceptable error level).

The Applicant contends, "Examiner fails to provide support for that statement from the Hayashi specification, and fails to show that Hayashi teaches such a method in response to the number of read errors rising above a predefined limit".

The Examiner disagrees and asserts that the Abstract in Hayashi explicitly teaches that control operations are performed moment-to-moment in response to parameter signal

from I/F circuit 26 in Figure 7 when the error rate varies from a certain acceptable error level.

The Examiner disagrees with the applicant and maintains all previous rejections of claims 1-3, 5-7, 19, 20 and 28-35. All amendments and arguments by the applicant have been considered. It is the Examiner's conclusion that claims 1-3, 5-7, 19, 20 and 28-35 are not patentably distinct or non-obvious over the prior art of record in view of the references, Hayashi, Yasuhiro et al. (US 5784356 A, hereafter referred to as Hayashi), Bullock; Dean C. et al. (US 5764651 A, hereafter referred to as Bullock) and Takamine, Kouichi et al. (US 6240055 B1, hereafter referred to as Takamine) in view of in view of Lee, Woo-Nyun et al. (US 5930448 A, hereafter referred to as Lee) as applied in the last office action, filed 05/26/2005. Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

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2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1, 19, 20 and 28-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi, Yasuhiro et al. (US 5784356 A, hereafter referred to as Hayashi) in view of Bullock; Dean C. et al. (US 5764651 A, hereafter referred to as Bullock).

35 U.S.C. 103(a) rejection of claims 1, 19, 20 and 28-33.

See the Non-Final Action filed 05/26/2005 for detailed action of prior rejections.

35 U.S.C. 103(a) rejection of claims 34 and 35.

Claim 34 has all the limitation of claim 1 and claim 25 contains limitations of previously examined claim 1.

See the Non-Final Action filed 05/26/2005 for detailed action of prior rejections.

5. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi, Yasuhiro et al. (US 5784356 A, hereafter referred to as Hayashi) and Bullock; Dean C. et al. (US 5764651 A, hereafter referred to as Bullock) in view of Takamine, Kouichi et al. (US 6240055 B1, hereafter referred to as Takamine).

See the Non-Final Action filed 05/26/2005 for detailed action of prior rejections.

6. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hayashi, Yasuhiro et al. (US 5784356 A, hereafter referred to as Hayashi), Bullock; Dean C. et al. (US 5764651 A, hereafter referred to as Bullock) and Takamine, Kouichi et al. (US 6240055 B1, hereafter referred to as Takamine) in view of Lee, Woo-Nyun et al. (US 5930448 A, hereafter referred to as Lee).

See the Non-Final Action filed 05/26/2005 for detailed action of prior rejections.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D. Torres whose telephone number is (571) 272-3829. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert Decady can be reached on (571) 272-3819. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**JOSEPH TORRES
PRIMARY EXAMINER**

Joseph D. Torres, PhD
Primary Examiner
Art Unit 2133